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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/814,188

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EXAMINER

WENDELL, ANDREW

ART UNIT

PAPER NUMBER

2618

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/814,188	<b>Applicant(s)</b> NISHIJIMA ET AL.	
	<b>Examiner</b> ANDREW WENDELL	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/26/2007 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 25 recites the limitation "said end portion" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 29-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishimura (US Pat Pub# 2006/0063570).

Regarding claim 29, Nishimura teaches a two-axis hinge 3 and 11 (Fig. 3) having a horizontal rotating axis and a folding axis for coupling the upper housing 51 (Fig. 3) and the lower housing 2 (Fig. 3), and adapting the housings for foldable rotation around the folding axis or an open-close operation (Figs. 3 and 5-6) and for horizontal rotation around the horizontal rotation axis (Figs. 3 and 7-9); and an information input device 4 (Fig. 3) and 6 (Fig. 5) arranged on top of one end portion of the horizontal rotation axis 3 and 11 (Fig. 3), the input device 4 (Fig. 3) and 6 (Fig. 5) being exposed to an outside of the mobile terminal both when the mobile terminal is in a closed position and when the mobile terminal is in an open position (Figs. 3, 5-6, 21-22, and 23-24).

Regarding claim 30, Nishimura teaches wherein the horizontal rotation axis 11 (Fig. 3) is mounted on the lower housing 2 (Fig. 3) with another end portion making a right angle with a surface of the housings 2 and 51 (Fig. 3); and the folding axis 3 (Fig. 3) is mounted in the upper housing 51 (Fig. 3), and is joined together with the horizontal rotation axis 11 (Fig. 3) by crossing through the horizontal rotation axis at a right angle for providing the foldable rotation and the horizontal rotation to the upper housing (Figs. 1-3).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 5-7, 18-19, and 24-28 rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US Pat Pub# 2006/0063570) in view of Gauld et al. (US Pat Pub# 2004/0198435).

Regarding claim 1, Nishimura's portable apparatus teaches a mobile terminal 100 (Fig. 1), comprising a control unit 99 (Fig. 1; Section 0033; obvious there is a control unit to have communication); a display unit 54 and 4 (Fig. 1); an upper housing 51 (Fig. 1); a lower housing 2 (Fig. 1); and a 2-axis hinge unit 3 and 11 (Fig. 3) for coupling the housings 2 and 51 (Fig. 1); wherein an end portion of the 2-axis hinge unit 2 and 51 (Fig. 2) is exposed outside the terminal 1, 4, and 6 (Fig. 2), and an information input device 4 and 6 (Fig. 2) is mounted in the end portion. Nishimura fails to teach a pointing device and a control unit.

Gauld's camera integration on a mobile device teaches a pointing device 17 (Fig. 1) and a control unit 104 (Fig. 4).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a pointing device as taught by Gauld into Nishimura's portable apparatus in order to provide an intuitive user interface (Sections 0013-0014).

Regarding claim 2, the combination including Gauld teaches wherein the control unit 104 (Fig. 4) controls the terminal according to an operation of the information input device 16 (Fig. 2).

Regarding claim 3, the combination including Gauld teaches wherein the control unit 104 (Fig. 4) assigns a predetermined function to the information input device (Section 0015).

Regarding claim 5, the combination including Gauld teaches wherein the control unit 104 (Fig. 4) assigns another operating function to the pointing device 17 (Fig. 1 and Sections 0024 and 0044).

Regarding claim 6, the combination including Gauld teaches wherein the information input device 17 (Fig. 1) further comprises a terminal operating function (Section 0024).

Regarding claim 7, the combination including Gauld teaches wherein the terminal operating function is performed by a press (Section 0024). Note, the user has to perform the function, so a press or some pressure has to be performed for a user to have function.

Regarding claim 18, the combination including Gauld teaches wherein the control unit detects an operation of a predetermined operation key to control an operation of the information input device (Section 0015).

Regarding claim 19, the combination including Gauld teaches wherein the control unit controls an operation of the information input device while a predetermined operation key is operated (Section 0015).

Regarding claim 24, the combination including Nishimura teaches wherein the terminal is a mobile telephone 100 (Fig. 1).

Regarding claim 25, the combination including Nishimura teaches wherein the two axes of the 2-axis hinge are a folding axis and a horizontal rotation axis (Fig. 3), the upper housing 51 (Fig. 3), the lower housing 2 (Fig. 3) and the 2-axis hinge being constructed and arranged so that the end portion of the 2-axis hinge on the horizontal rotation axis is exposed to an outside of the mobile terminal both when the mobile terminal is in an open position and when the mobile terminal is in a closed position (Figs. 2, 5, and 7).

Regarding claim 26, the combination including Nishimura teaches wherein the end portion is exposed on a side face of the lower housing (Fig. 3).

Regarding claim 27, the combination including Nishimura teaches wherein the information device is arranged on the end portion of the 2-axis hinge (Figs. 3 and 5).

Regarding claim 28, Nishimura teaches a lower housing 2 (Fig. 3); a 2-axis hinge 11 and 3 (Fig. 3) the connected to the lower housing 2 (Fig. 3); an upper housing 51 (Fig. 3) connected to the 2-axis hinge 3 and 11 (Fig. 3); a display unit 54 (Fig. 3) disposed on the upper housing 51 (Fig. 3); a control unit 99 (Fig. 1; Section 0033; obvious there is a control unit to have communication); and wherein an end portion of the 2-axis hinge unit 3 and 11 (Fig. 3) is exposed outside the terminal 4 (Fig 3) and 6 (Fig. 5), the information input device 4 (Fig 3) and 6 (Fig. 5) is mounted in the end portion. Nishimura fails to teach a button and a control unit.

Gauld teaches a button 16 (Fig. 4) or 17 (Fig. 1) operatively connected to the control unit 104 (Fig. 4) for user input.

9. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US Pat Pub# 2006/0063570) in view of Gauld et al. (US Pat Pub# 2004/0198435) and further in view of Schmitt et al. (US Pat# 6,088,585).

Regarding claim 8, Nishimura's portable apparatus in view of Gauld's camera integration on a mobile device teaches the limitations in claim 1. Nishimura and Gauld fail to teach a fingerprint sensor.

Schmitt's portable telecommunication device including a fingerprint sensor teaches a fingerprint sensor 30 (Fig. 14).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a fingerprint sensor as taught by Schmitt into a pointing device as taught by Gauld into Nishimura's portable apparatus in order to increase security and reliability (Col. 3 lines 3-11).

Regarding claim 9, the combination including Schmitt teaches wherein the control unit 207 (Fig. 15) can operate the terminal 190 (Fig. 15) when the fingerprint sensor 30 (Fig. 15) detects a predetermined input.

10. Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US Pat Pub# 2006/0063570) in view of Gauld et al. (US Pat Pub# 2004/0198435) and further in view of Kim (US Pat# 6,621,066).

Regarding claim 10, Nishimura's portable apparatus in view of Gauld's camera integration on a mobile device teaches the limitations in claim 1. Nishimura and Gauld fail to teach position detection means.



Kim's optimizing opening and closing control of a sub-body in automatic and manual folder type mobile communication terminals teaches position detection means 236, 238, 300 and 302 (Fig. 4) for detecting relative positions between the upper housing and the lower housing

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a sensor detection means as taught by Kim into a pointing device as taught by Gauld into Nishimura's portable apparatus in order to have a more efficient and precise control for opening or closing the sub-body folder upon using of the terminal (Col. 1 lines 51-61).

Regarding claim 11, Kim further teaches wherein the control unit 200 (Fig. 3) controls the terminal based on an output of the position detection means 236 and 238 (Fig. 3).

Regarding claim 12, Gauld further teaches wherein the control unit 104 (Fig. 4) controls an operation of the information input device 16 (Fig. 4).

Regarding claim 13, Kim further teaches wherein the position detection means comprise a magnet 300 and 302 (Fig. 4) and a magnetic sensor 236 and 238 (Fig. 4).

Regarding claim 14, Kim further teaches wherein the magnet 300 and 302 (Fig. 4) and the magnetic sensor 236 and 238 (Fig. 4) are arranged in separate housings (Fig. 4).

Regarding claim 15, Kim further teaches wherein the magnetic sensor is a Hall element (Fig. 4).

Regarding claim 16, Kim further teaches wherein the position detection means detect a turning direction of the housings (Col. 2 line 1-Col. 3 line18).

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US Pat Pub# 2006/0063570) in view of Gauld et al. (US Pat Pub# 2004/0198435) and further in view of Kim (US Pat# 6,621,066) and further in view of Ikeda et al. (US Pat# 6,957,083).

Regarding claim 17, Nishimura's portable apparatus in view of Gauld's camera integration on a mobile device and further in view of Kim's optimizing opening and closing control of a sub-body in automatic and manual folder type mobile communication terminals teaches the limitations in claims 1, 10, and 16. Nishimura, Kim, and Gauld fail to teach a control unit controls the display unit based on the turning direction of the housings.

Ikeda's mobile telephone teaches wherein the control unit controls the display unit based on the turning direction of the housings (Col. 1 line 57-Col. 2 line 44 and Col. 3 line 41-Col. 5 line 60).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a control unit controls the display unit based on the turning direction of the housings as taught by Ikeda into a sensor detection means as taught by Kim into a pointing device as taught by Gauld into Nishimura's portable apparatus in order to make using the camera easier to use (Col. 1 lines 42-56).

12. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US Pat Pub# 2006/0063570) in view of Gauld et al. (US Pat Pub# 2004/0198435) and further in view of Wada et al. (US Pat Pub# 2003/0174240).

Regarding claim 20, Nishimura's portable apparatus in view of Gauld's camera integration on a mobile device teaches the limitations in claim 1. Nishimura and Gauld fail to teach a lock unit.

Wada's mobile telephone teaches a lock unit for locking the 2-axis hinge unit (Section 0055).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a lock unit as taught by Wada into a pointing device as taught by Gauld into Nishimura's portable apparatus in order to increase security (Section 0017 and 0056).

Regarding claim 21, Wada further teaches wherein the lock unit is controlled by an input from the information input device (Section 0055).

Regarding claim 22, Wada further teaches wherein the information input device is a personal authentication sensor (Section 0055); and the lock unit is released when the sensor detects a predetermined input (Section 0055).

13. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US Pat Pub# 2006/0063570) in view of Gauld et al. (US Pat Pub# 2004/0198435) in view of Wada et al. (US Pat Pub# 2003/0174240) and further in view of Schmitt et al. (US Pat# 6,088,585).

Regarding claim 23, Nishimura's portable apparatus in view of Gauld's camera integration on a mobile device and further in view of Wada's mobile telephone teaches the limitations in claims 1 and 20-22. Nishimura, Gauld, and Wada fail to teach a fingerprint sensor.

Schmitt's portable telecommunication device including a fingerprint sensor teaches a fingerprint sensor 30 (Fig. 14).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a lock unit as taught by Wada into a fingerprint sensor as taught by Schmitt into a pointing device as taught by Gauld into Nishimura's portable apparatus in order to increase security and reliability (Col. 3 lines 3-11).

14. Claims 31 and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US Pat Pub# 2006/0063570) in view of Kim (US Pat# 6,621,066).

Regarding claim 31, Nishimura teaches the limitations in claims 29-30.

Nishimura fails to teach a detection unit.

Kim teaches a position detection unit 236, 238, 300 and 302 (Fig. 4) for detecting one of relative positions between the upper housing 120 (Fig. 1A) and the lower housing 110 (Fig. 1A), wherein the relative positions include a first position in which the upper housing is closed and overlaid on the lower housing and wherein the display unit and the operation key unit are facing each other, a second position in which the upper housing is opened from the first position by the foldable rotation, a third position in which the upper housing is turned 180 degrees from the first position by the horizontal

rotation, a fourth position in which the upper housing is turned 90 degrees from the second position by the horizontal rotation, and fifth position in which the upper housing is further turned 90 degrees from the fourth position by the horizontal rotation (Figs. 3-4).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a sensor detection means as taught by Kim into Nishimura's portable apparatus in order to have a more efficient and precise control for opening or closing the sub-body folder upon using of the terminal (Col. 1 lines 51-61).

Regarding claim 34, the combination including Kim teaches wherein the position detection unit comprises a magnet 300 and 302 (Fig. 4) and a magnet sensor 236 and 238 (Fig. 4) each arranged in a different the housing from each other (Fig. 4).

Regarding claim 35, the combination including Kim further teaches wherein the magnet sensor is a Hall element (Fig. 4).

15. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US Pat Pub# 2006/0063570) view of Kim (US Pat# 6,621,066) and further in view of Gauld et al. (US Pat Pub# 2004/0198435).

Regarding claim 32, Nishimura in view of Kim teaches the limitations in claims 29-31. Nishimura and Kim fail to teach a pointing device.

Gauld teaches wherein the information input device is a pointing device 17 (Fig. 1) for selecting a pointer shown on the display unit 14 (Fig. 1), and the mobile terminal

further comprising a control unit 104 (Fig. 4) to control an operation of the pointing device so as to disable the operation of the pointing device.

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a pointing device as taught by Gauld into a sensor detection means as taught by Kim into Nishimura's portable apparatus in order to provide an intuitive user interface (Sections 0013-0014).

16. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US Pat Pub# 2006/0063570) view of Kim (US Pat# 6,621,066) and further in view of Gauld et al. (US Pat Pub# 2004/0198435) and further in view of Ikeda et al. (US Pat# 6,957,083).

Regarding claim 33, Nishimura in view of Kim and further in view of Gauld teaches the limitations in claims 29-32. Nishimura, Gauld, and Kim fail to teach a control unit controls the display unit based on the turning direction of the housings.

Ikeda teaches wherein the control unit controls a display operation based on the pointing device so as to select the pointer on the display unit of an opposite direction of right and left when the third position is detected by the position detection unit (Col. 1 line 57-Col. 2 line 44 and Col. 3 line 41-Col. 5 line 60).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a control unit controls the display unit based on the turning direction of the housings as taught by Ikeda into a pointing device as taught by Gauld into a sensor detection means as

taught by Kim into Nishimura's portable apparatus in order to make using the camera easier to use (Col. 1 lines 42-56).

17. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US Pat Pub# 2006/0063570) in view of Schmitt et al. (US Pat# 6,088,585).

Regarding claim 36, Nishimura teaches the limitations in claim 29. Nishimura fail to teach a fingerprint sensor.

Schmitt teaches a fingerprint sensor 30 (Fig. 14).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a fingerprint sensor as taught by Schmitt into Nishimura's portable apparatus in order to increase security and reliability (Col. 3 lines 3-11).

### ***Response to Arguments***

No new arguments were presented at this time.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW WENDELL whose telephone number is (571)272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Wendell/  
Examiner, Art Unit 2618

/Nay A. Maung/  
Supervisory Patent Examiner,  
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2/25/2008